

## Tocolysis in cases of premature rupture of the membranes.

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Despite of the fast development of diagnostics and therapy in perinatal medicine premature birth still represents the main problem for the obstetrician.

In former investigations we could show, that PROM represents the limiting factor in the reduction of premature birth. An influence on the quota of premature birth will be only possible when the management of PROM can be improved.

Since recently individual cases were reported with severe intrauterine infection during tocolytic therapy after PROM, we analysed gestation, delivery and puerperium of all patients who had tocolytic therapy and had ruptured membranes when admitted to hospital from 1971 to 1980, in total 139 cases.

We did not apply antibiotics in general. In the last years however we performed a local infection prophylaxis.

Regarding the time of ruptured membranes, we found, that about 15% of our patients had the rupture of membranes before the 28<sup>th</sup> week of gestation. The average duration of tocolysis was 8.4 days. Almost 75% of our patients delivered within one week after PROM. In 9% we could achieve a delay of delivery for more than three weeks. 96,5% of our patients delivered within 12 hours after the end of tocolysis.

Temperatures higher than 38° together with foul smelling amniotic fluid and without evidence for another infectious disease we found in 20,9%.

In 31% the gestational age at the time of birth was less 33 weeks. In 47% the gestational age was from 33 to 36 weeks.

The average 1' Apgar score was 7.6. Two thirds of the newborn had a birth weight lower than 2500 g, 7% had less than 1000 g. The mortality in this group was 100% and decreased considerable in the group of newborn with a birthweight between 1000 g and 1500 g.

Regarding the course of puerperium, we could find an increase of temperatures higher than 38° in 15% of our patients. The frequency of endometritis was 9,3%. 85% of our patients with PROM and tocolytic therapy had an uncomplicated puerperium.

Considering our results, we conclude the following therapeutic procedure in patients with PROM:

- In PROM from the 24<sup>th</sup> to the 36<sup>th</sup> week of gestation we apply tocolytics.
- We try to keep the pregnancy intact until the prove of maturity of fetal lungs.
- After reaching maturity of fetal lungs pregnancy will be terminated.
- Delivery should be initiated at once, when temperatures increase.
- Antibiotics will be given at once, when an increase of temperatures is registered. There will be no prophylactic use of antibiotics.
- No vaginal or rectal examinations should be performed in patients with PROM and tocolytic therapy.

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